

**Amendments to the Claims:**

This claim listing replaces all prior versions and listings of claims in the application.  
Please amend the claims as follows:

1. (Currently amended) A process for preparing 17 $\beta$ -substituted 4-azaandrost-1-en-3-one compounds of the general formula (I):



where

R is hydroxyl, optionally substituted, linear or branched (C<sub>1</sub>-C<sub>12</sub>)alkyl or (C<sub>1</sub>-C<sub>12</sub>)alkenyl; phenyl or benzyl; an -OR<sub>1</sub> radical, or an -NHR<sub>1</sub> radical, or an -NR<sub>1</sub>R<sub>2</sub> radical;

R<sub>1</sub> is hydrogen, optionally substituted, linear or branched (C<sub>1</sub>-C<sub>12</sub>)alkyl or (C<sub>1</sub>-C<sub>12</sub>)alkenyl, or optionally substituted phenyl;

R<sub>2</sub> is hydrogen, methyl, ethyl or propyl; or

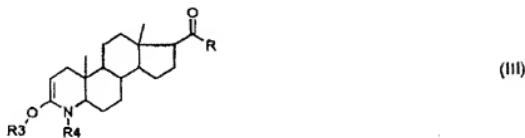
-NR<sub>1</sub>R<sub>2</sub> is a 5- or 6-membered heterocyclic ring, and when R= hydroxyl also a pharmaceutically approved salt thereof,

characterized in that

(A) protecting groups are introduced into the 3-keto-4-aza moiety (lactam moiety) of a compound of the general formula (II):



so that a compound of the general formula (III) is formed:



where

R<sub>3</sub> is trialkylsilyl or, together with R<sub>4</sub>, the -C(O)-C(O)- or -C(O)-Y-C(O)- radical;

R<sub>4</sub> is alkyloxycarbonyl or phenoxy carbonyl, **preferably** Boc (= tert-

butyloxycarbonyl); or trialkylsilyl, or, together with R<sub>3</sub>, the -C(O)-C(O)- or -C(O)-Y-C(O)- radical;

Y is -[C(R<sub>5</sub>)(R<sub>6</sub>)]<sub>n</sub>- or -CH(R<sub>5</sub>)=CH(R<sub>6</sub>)-, or ortho-phenylene;

R<sub>5</sub> and R<sub>6</sub> are each independently hydrogen, linear or branched (C<sub>1-8</sub>)alkyl or alkenyl, optionally substituted phenyl or benzyl; and

n is an integer of 1 to 4;

and where, in the case that R is hydroxyl, it has optionally reacted with a protecting group;

(B) the compound obtained [in step (A)] is reacted in the presence (i) of a dehydrogenation catalyst selected from compounds of group VIII of the Periodic Table of Elements and in the presence (ii) optionally substituted benzoquinone, allyl methyl carbonate,

allyl ethyl carbonate and/or allyl propyl carbonate, and the  $\Delta^1$  double bond is introduced in the 1-/2-position, and

(C) the protecting groups R<sub>3</sub> and R<sub>4</sub> are removed and when R = hydroxyl the resulting compound is optionally converted to a salt.

2. (Currently amended) The process of claim 1, characterized in that R is linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, ~~preferably~~ methyl, ethyl, propyl or n-butyl, sec-butyl or tert-butyl, preferably tert-butyl; or an -OR<sub>1</sub> radical, or an -NHR<sub>1</sub> radical, or an -NR<sub>1</sub>R<sub>2</sub> radical, ~~preferably~~ an -NHR<sub>1</sub> radical, ~~preferably~~ -NH-tert-butyl, or optionally substituted phenyl.

3. (Currently amended) The process of claim 1, characterized in that R<sub>1</sub> is linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, ~~preferably~~ methyl, ethyl, propyl, n-butyl, sec-butyl or tert-butyl; ~~preferably~~ tert-butyl.

4. (Previously presented) The process of claim 1, characterized in that R is an -NHR<sub>1</sub> radical where R<sub>1</sub> is 2,5-bis(trifluoromethyl)phenyl.

5. (Previously presented) The process of claim 1, characterized in that the R<sub>2</sub> substituent in the -NR<sub>1</sub>R<sub>2</sub> radical is methyl.

6. (Previously presented) The process of claim 1, characterized in that the -NR<sub>1</sub>R<sub>2</sub> substituent as a 5- or 6-membered heterocyclic ring is a radical of piperidine or pyrrolidine.

7. (Previously presented) The process of claim 1, characterized in that R<sub>3</sub> is trimethylsilyl, or, together with R<sub>4</sub>, is the -C(O)-C(O)- or -C(O)-Y-C(O)- radical.

8. (Currently amended) The process of claim 1, characterized in that R<sub>4</sub> is alkyloxycarbonyl, ~~preferably~~ isobutyloxycarbonyl, tert-butyloxycarbonyl, tert-amyoloxycarbonyl,

cyclobutyloxycarbonyl, 1-methylcyclobutyloxycarbonyl, cyclopentyloxycarbonyl, cyclohexyloxycarbonyl, and 1-methylcyclohexyloxycarbonyl, preferably tert butyloxycarbonyl.

9. (Currently amended) The process of claim 1, characterized in that R<sub>4</sub> is Boc, trimethylsilyl, or, together with R<sub>3</sub>, the -C(O)-C(O)- or -C(O)-Y-C(O)- radical, preferably Boc or, together with R<sub>3</sub>, the -C(O)-C(O)- or -C(O)-Y-C(O)- radical.

10. (Currently amended) The process of claim 1, characterized in that R<sub>5</sub> and R<sub>6</sub> are each independently hydrogen, linear or branched (C<sub>1-4</sub>)alkyl, or phenyl, preferably hydrogen, methyl, ethyl or propyl or phenyl, preferably the -CH(R<sub>5</sub>)- radical or ortho-phenylene, preferably methylene, and n is 1 or 2, preferably 1.

11. (Currently amended) The process of claim 1, characterized in that in step (B) the compound of the general formula (II) for the introduction of the Boc protecting group has been reacted with this Boc anhydride or Boc carbamate or an analogous compound in which the tert butyl radical is replaced by tert-amyl, cyclobutyl, cyclopentyl or cyclohexyl.

12. (Currently amended) The process of claim 1, characterized in that the dehydration catalyst [in step (B)] is selected from compounds of group VIII of the Periodic Table of the Elements, preferably from compounds of iron, ruthenium and osmium; cobalt, rhodium and iridium; nickel, palladium and platinum; and copper, silver and gold, preferably from compounds based on rhodium, palladium and platinum.

13. (Currently amended) The process of claim 1, characterized in that the dehydrogenation catalyst [in step (B)] is selected from Pd(0) compounds; and is preferably the tris(dibenzylidineacetone)dipalladium-chloroform complex.

14. (Currently amended) The process of claim 1, characterized in that the dehydrogenation catalyst [in step (B)] is selected from Pd(II) compounds, said Pd(II) compounds being selected from the group consisting of preferably from PdCl<sub>2</sub>, Pd(dppe)<sub>2</sub>, [dppe = bis(1,2-biphenylphosphino)ethane], Pd(dppe)Cl<sub>2</sub>, Pd(OAc)<sub>2</sub>, and Pd(dppe)(OAc)<sub>2</sub>, and/or from  $\pi$ -allyl-Pd complexes, preferably including  $\pi$ -allyl-Pd chloride dimer, and mixtures thereof.

15. (Currently amended) The process of claim 1, characterized in that the dehydrogenation catalyst, preferably the palladium salt or the palladium complex, is stabilized thermally by the presence of an additional complexing agent selected from, preferably 2,2'-bipyridyl or 1,10-phenanthroline, preferably 2,2'-bipyridyl.

16. (Currently amended) The process of claim 1, characterized in that the benzoquinone quinine used [in step (B)] is a substituted quinine, preferably a C<sub>1,4</sub>-alkyl-, halogen-, cyano- or nitro-substituted quinine quinone.

17. (Currently amended) The process of claim 1, characterized in that [in step (C)] the introduced protecting groups are removed by treating with a suitable acid, preferably by treating with formic acid, acetic acid and/or trifluoroacetic acid, preferably with formic acid.

18. (Currently amended) The process of claim 1, characterized in that [in step (C)] the resulting compound where R is hydroxyl is converted to an alkali metal salt, an alkaline earth metal salt, or an ammonium salt, preferably to a salt of sodium, potassium or ammonium, preferably to a salt of sodium or potassium.

19. (Currently amended) The process of claim 1, characterized in that the resulting compound of the formula (I) is crystallized from an apolar solvent, preferably said solvent being selected from benzene, heptane, hexane, and/or toluene, and mixtures thereof, preferably from toluene.

20. (Currently amended) The process of claim 1, characterized in that the resulting compound of the formula (I) which is  $17\beta$ -(N-tert-butylcarbamoyl)-4-azaandrost-1-en-3-one is crystallized-in the polymorphic form I from a saturated solution of toluene at a temperature of about 25°C.

21. (Currently amended) The process of claim 1, characterized in that the resulting compound of the formula (I) which is  $17\beta$ -(N-tert-butylcarbamoyl)-4-azaandrost-1-en-3-one is crystallized-in the polymorphic form II from a saturated solution of toluene at a temperature of about 0°C.